

CLAIMS

What is claimed is:

1 1. A heat dissipation device, comprising:
2 a base having a first base surface;
3 at least one fin extending from said first base surface;
4 a spring clip channel defined proximate said at least one fin; and
5 a load centering mechanism within said spring clip channel, said load centering
6 mechanism integrally associated with said first base surface.

1 2. The heat dissipation device of claim 1, wherein said load centering
2 mechanism comprises a pedestal extending from said first base surface.

1 3. The heat dissipation device of claim 1, wherein said spring clip channel
2 further includes at least one sloped side adapted to orient a spring clip on said load
3 centering mechanism.

1 4. The heat dissipation device of claim 1, wherein said load centering
2 mechanism includes at least one sloped side adapted to orient a spring clip thereon.

1 5. The heat dissipation device of claim 1, further including at least one
2 depression defined in said base from said first base surface that defines said load
3 centering mechanism.

1 6. A microelectronic assembly, comprising:
2 a microelectronic device; and
3 a heat dissipation device, including a base having a first base surface and an
4 opposing second surface, wherein said heat dissipation device makes thermal contact
5 with said microelectronic device, and including at least one fin extending from said first
6 base surface, a spring clip channel defined proximate said at least one fin, and a load
7 centering mechanism within said spring clip channel, said load centering mechanism
8 integrally associated with said first base surface.

1 7. The microelectronic assembly of claim 6, wherein said load centering
2 mechanism of said heat comprises a pedestal extending from said first base surface.

1 8. The microelectronic assembly of claim 6, wherein said spring clip channel
2 further includes at least one sloped side adapted to orient a spring clip on said load
3 centering mechanism.

1 9. The microelectronic assembly of claim 6, wherein said load centering
2 mechanism includes at least one sloped side adapted to orient a spring clip thereon.

1 10. The microelectronic assembly of claim 6, further including at least one
2 depression defined in said base from said first base surface that defines said load
3 centering mechanism.

1 11. A method for fabricating a heat dissipation device, comprising:
2 forming a base having a first base surface;
3 forming at least one fin extending from said first base surface;
4 forming a spring clip channel defined proximate said at least one fin; and
5 forming a load centering mechanism within said spring clip channel, said load
6 centering mechanism integrally associated with said first base surface.

1 12. The method of claim 11, wherein said forming said base, forming said at
2 least one fin, forming said spring clip channel, and forming said load centering
3 mechanism occur substantially simultaneously in a molding process.

1 13. The method of claim 11, wherein forming said load centering mechanism
2 comprises forming a pedestal extending from said first base surface.

1 14. The method of claim 11, wherein forming said load centering mechanism
2 comprises attaching said load centering mechanism to said base first surface within said
3 spring clip channel.

1 15. The method of claim 11, wherein forming said base, forming said at least
2 one fin, and forming said spring clip channel occur substantially simultaneously in a
3 extrusion process, and forming said load centering mechanism comprises milling away a
4 portion of said spring clip channel.

1 16. The method of claim 11, wherein forming said load centering mechanism
2 comprises forming at least one depression extending into said base from said base first
3 surface within said spring clip channel.

1 17. The method of claim 11, wherein forming said spring clip channel further
2 includes forming at least one sloped side adapted to orient a spring clip on said load
3 centering mechanism.

1 18. The method of claim 11, wherein forming said load centering mechanism
2 further includes forming at least one sloped side adapted to orient a spring clip thereon.

1 19. A method for fabricating a microelectronic assembly, comprising:
2 providing a microelectronic device;
3 providing a heat dissipation device including a base having a first base surface
4 and an opposing second base surface, at least one fin extending from said first base
5 surface, a spring clip channel defined proximate said at least one fin, and a load centering

6 mechanism within said spring clip channel, said load centering mechanism integrally
7 associated with said first base surface;
8 placing said heat dissipation device second base surface in thermal contact and
9 microelectronic device; and
10 placing a spring clip within said spring clip channel.

1 20. The method of claim 19, further including placing said microelectronic
2 device in a socket, and securing said spring clip to said socket.